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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,437	09/05/2006	Roger Milner King	CAR-001PAT	4872

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EXAMINER	
VOLZ, ELIZABETH J	
ART UNIT	PAPER NUMBER
3781	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,437	KING, ROGER MILNER	
	Examiner	Art Unit	
	ELIZABETH VOLZ	3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/5/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over King (GB 2382071) in view of King (U.S. Patent No. 4,084,717).

3. Regarding Claim 1, King '071 discloses a threaded container closure assembly (Figure 1) comprising: a container neck 10 (Figure 2) having an opening (Figure 2); a closure 12 (Figure 1) for said neck, the closure having a base portion 14 (Figure 3) and a skirt portion 16 (Figure 3); a first screw thread 18 (Figure 2) on the neck, said first screw thread comprising one or more first thread segments (Figure 2), and a second screw thread 20 (Figure 3) on an inner surface of the skirt of the closure, said second screw thread comprising one or more second thread segments (Figure 3) define a continuous helical thread path along which said closure travels from a fully disengaged to a fully secured position of the closure on the container neck and being configured to enable a user to secure (Figure 1), remove and resecure the closure into a sealing position on the neck by rotation of the closure on the neck (Page 3, Lines 6-8). King '071 does not disclose a first locking projection on the container neck separate from the first thread segments and a second locking projection on the inner surface of the skirt of the closure separate from the second thread segments, said first and second locking

projections being configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a predetermined minimum opening torque is applied; wherein said first and second locking projections longitudinally overlap the first of the second thread segments when the closure is in the fully engaged position on the container neck; the first and second locking projections have a length in the longitudinal direction of from 2 mm to 6 mm; the height of said locking projections is from 0.5 mm to 2 mm, whereby a radially innermost vertex of the second locking element rides over a radially outermost vertex of the first locking element as the fully secured position is reached and the first locking projection is located longitudinally overlapping with and circumferentially spaced from an upper end of a first thread segment and define an extension of the thread path. However, King '717 teaches a first locking projection 40 (Figure 4) on the container neck separate from the first thread segments and a second locking projection 22 (Figure 3) on the inner surface of the skirt of the closure separate from the second thread segments, said first and second locking projections being configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a predetermined minimum opening torque is applied (Column 3, Lines 41-43); wherein said first and second locking projections longitudinally overlap the first of the second thread segments when the closure is in the fully engaged position on the container neck (Figure 7) and whereby a radially innermost vertex of the second locking element rides over a radially outermost vertex of the first locking element as the fully secured position is reached and

the first locking projection is located longitudinally overlapping with and circumferentially spaced from an upper end of a first thread segment and define an extension of the thread path (Figure7). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King '071 to include locking projections, as taught by King '717, in order to prevent the cap from unscrewing (Column 3, Lines 41-43).

King '071 and King '717 teach all the limitations substantially as claimed except for the first and second locking projections have a length in the longitudinal direction of from 2 mm to 6 mm and a height of said locking projections is from 0.5 mm to 2 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the first and second locking projections have a length in the longitudinal direction of from 2 mm to 6 mm and a height of said locking projections is from 0.5 mm to 2 mm since it has been held that where the general conditions of a claim are disclosed in the prior art, **discovering the optimum or workable ranges** involves only routine skill in the art. *In re Aller, 105 USPQ 233.*

4. Regarding Claim 2, King '071 teaches all the limitations substantially as claimed except for first and second locking projections which do not extend below the lower edge of the thread segments when fully engaged on the container neck. However, King '717 teaches first and second locking projections 40/22 (Figures 3 and 4) which do not extend below the lower edge of the thread segments when fully engaged on the container neck (Figure 7). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King '071 to include first and

second locking projections which do not extend below the lower edge of the thread segments when fully engaged on the container neck, as taught by King '717, in order to prevent the cap from unscrewing (Column 3, Lines 41-43).

5. Regarding Claim 3, King '071 teaches all the limitations substantially as claimed except for locking projections with a ratio of the maximum height to the maximum width is at least 0.5. However, King '717 locking projections with a ratio of the maximum height to the maximum width is at least 0.5 (Figure 7). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King '071 to include locking projections with a ratio of the maximum height to the maximum width is at least 0.5, as taught by King '717, in order to prevent the cap from unscrewing (Column 3, Lines 41-43).

6. Regarding Claim 4, King '071 teaches all the limitations substantially as claimed except for first and second locking projections which are situated near the bottom of the threads when the closure is fully secured on the container. However, King '717 teaches first and second locking projections which are situated near the bottom of the threads when the closure is fully secured on the container (Figure 7). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King '071 to include first and second locking projections which are situated near the bottom of the threads when the closure is fully secured on the container, as taught by King '717, in order to prevent the cap from unscrewing (Column 3, Lines 41-43).

7. Regarding Claim 5, King '071 discloses first thread segments 18 (Figure 1) which are shorter than said second thread segments 20 (Figure 1).

8. Regarding Claims 6, 7 and 12, King '071 discloses there are 4 to 16 first thread segments (Figure 4) and at least four thread starts (Figure 4).

9. Regarding Claim 8, King '071 discloses mutually engageable elements on the neck and the closure to block or restrict rotation of the closure in an unscrewing direction beyond an intermediate position when the closure is under axial pressure in a direction emerging from a container neck (Page 9, Lines 1-4).

10. Regarding Claims 9-11, King '071 discloses a closure which can be moved from a fully released to a fully engaged position on the container neck by a single smooth rotation through 90 degrees or less (Page 6, Lines 32-Page 7, Lines 1-2).

11. Regarding Claim 13, King '071 teaches all the limitations substantially as claimed except for first and second locking projection which are configured such that they are in abutment when the closure is at the fully closed and sealing position on the container neck, and the closure projections are slightly distorted at said sealing position such that a resilient force is exerted between the projections in abutment to urge the closure into said fully closed and sealing position. However, King '717 teaches first and second locking projection which are configured such that they are in abutment when the closure is at the fully closed and sealing position on the container neck, and the closure projections are slightly distorted at said sealing position such that a resilient force is exerted between the projections in abutment to urge the closure into said fully closed and sealing position (Figure 7; Column 3, Lines 39-43). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify King '071 to include first and second locking projection which are configured such that

they are in abutment when the closure is at the fully closed and sealing position on the container neck, and the closure projections are slightly distorted at said sealing position such that a resilient force is exerted between the projections in abutment to urge the closure into said fully closed and sealing position, as taught by King '717, in order to prevent the cap from unscrewing (Column 3, Lines 41-43).

Response to Arguments

12. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH VOLZ whose telephone number is (571) 270-5430. The examiner can normally be reached on Monday-Thursday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571) 272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. V./
Examiner, Art Unit 3781

/Anthony Stashick/
Supervisory Patent Examiner, Art Unit 3781